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PA - (PUKH-I) PUKHOVA YA I
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AB - RU2067766 Evaluation of the functional activity of immunocompetent cells (ICC) in the whole blood system involves selection of blood samples, recording the level of chemiluminescence in the presence of an inductor and a chemiluminescence probe, with subsequent calculation of an evaluation criterion E. The chemiluminescence light sum S, equal to the area under the chemiluminescence reaction curve (CLR), and the time during which 50% of the CLR light sum is realised (Tc), are recorded. The evaluation criterion E characterizing the degree of difference between the two CLR, i.e. that for the patient and that for the norm, is the difference between these two curves which can be represented on a plane in the form of 2 points in the S, Tc coordinate system. This is calculated as the normalised square of the distance between these two points to the square of the distance from the origin of coordinates (Tv, S) to the point CLR1 (point of the norm) from the formula $E = 100 (Tc(pat)-T(nor))2+(S(pat)-S(nor))2/(Tc(nor)2+S(nor)2)$, where the parameters of the mean statistical CLR curve are taken as the norm: for practically healthy patients. Additional kinetic CLR characteristics are then calculated in the S, Tc coordinate system as the difference (S (pat)-S(nor)) and (Tc(pat)-Tc(nor)), from which when S pat is greater than S nor + sigma , a judgement is made that the CLR activity of the patient is higher than the upper limit of the norm, and if S pat is less than S nor- sigma , a judgement is made that the CLR activity is below the lower limit of the norm. If Tc pat is less than Tc nor - sigma , a 'left shift' judgement is made, indicating an increase in the CLR above the upper limit of the norm, and if Tc pat is greater than Tc nor + sigma , a 'right shift', indicating a decrease in the CLR rate below the lower limit of the norm.

    - USE - The method is useful in clinical medicine, experim ntal and clinical immunology and general pathology, for early diagnosis of immunodeficient states, for monitoring the functional activity of immunocompetent cells in immuno-correction, in testing pharmacological prepns. and in evaluating th eff ctiveness of intensive therapy.
    - ADVANTAGE - The method is simpler, more accurate and more informative

than previous methods.

- (Dwg.0/4)

IW - EVALUATE FUNCTION ACTIVE IMMUNO COMPETENT CELL WHOLE BLOOD SYSTEM
RECORD LIGHT SUM CHEMILUMINESCENT TIME PER CENT LIGHT SUM REALISE

IKW - EVALUATE FUNCTION ACTIVE IMMUNO COMPETENT CELL WHOLE BLOOD SYSTEM
RECORD LIGHT SUM CHEMILUMINESCENT TIME PER CENT LIGHT SUM REALISE

INW - PUKHOV K I; PUKHOVA YA I; ZVEGINTSEV S A

NC - 001

OPD - 1992-05-15

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PAW - (PUKH-I) PUKHOVA YA I

TI - Evaluating functional activity of immuno-competent cells in whole
blood system - with recording of the light sum of chemiluminescence
and time during which 50 per cent of the light sum is realised